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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,578	08/20/2003	Patrick Jay Lutz	05408/100K559-US1	5199
7278	7590	05/01/2009		
DARBY & DARBY P.C. P.O. BOX 770 Church Street Station New York, NY 10008-0770			EXAMINER PURDY, KYLE A	
			ART UNIT 1611	PAPER NUMBER
			MAIL DATE 05/01/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/644,578	<b>Applicant(s)</b> LUTZ ET AL.	
	<b>Examiner</b> Kyle Purdy	<b>Art Unit</b> 1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,7-11 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,7-11 and 20-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Application***

1. The Examiner acknowledges receipt of the amendments filed on 02/20/2009 wherein claims 1 and 20 have been amended and claims 23-25 have been cancelled.
2. Claims 1, 2, 4, 7-11 and 20-22 are presented for examination on the merits. Claims 12-19 stand as withdrawn. The following rejections are made.

### ***Response to Applicants' Arguments***

3. Applicants arguments filed 02/20/2009 regarding the rejection of claims 1, 2, 4, 7-11, 20-22, 24 and 25 made by the Examiner under 35 USC 103(a) over Rothernburger et al. (US 6121302) in view of Trinh et al. (US 6682694) have been fully considered and they are found persuasive. This rejection has been overcome by amendment to the claims. Note, claims 24 and 25 have been cancelled.
4. Applicants arguments filed 02/20/2009 regarding the rejection of claim 23 made by the Examiner under 35 USC 103(a) over Farina et al. (US 5405862) in view of Rothernburger have been fully considered and they are found persuasive. This rejection has been overcome by cancellation of the claim.

### **New Rejections, Necessitated by Amendment** ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**7. Claims 1, 2, 4, 7-11 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farina et al. (US 5405862, published 04/11/1995; of record) in view of Trinh et al. (US 6682694, filed 03/30/2001; of record).**

8. Farina is directed to antibacterial low free formaldehyde methylolhydantoin compositions. The composition comprises dimethyloldimethylhydantoin (DMDMH), monomethyloldimethylhydantoin (MDMH) and dimethylhydantoin (DMH) (see abstract and column 1; see instant claims 1, 4 and 20). Farina teaches a antimicrobial preservative composition comprising 27.4% of MDMH, 26.1% of DMDMH and 4.2% of DMH (see Table 5; see instant claims 1, 9, 10 and 20). The compositions are to be essentially free of free formaldehyde such that free formaldehyde is present in an amount less than 0.1% by weight (see claim 1; see instant claims 8 and 21).

9. Farina fails to teach the composition as comprising dehydroacetic acid (DHA) and its sodium salt being used in an amount of between about 0.5% to about 95%.

10. Trinh teaches a preservative composition including imidazolidinedione compounds such DMDMH for it effective against bacteria. Trinh further teaches the use of DHA in an amount of

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about 0.005 to about 0.2% by weight of the composition (see column 11, lines 1-5). Trinh teaches the preservatives can be used in mixtures in order to control a broad range of microorganisms.

11. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Farina and Trinh to arrive at a synergistic antibacterial composition free of isothiazolones. Farina is directed to antimicrobial composition comprising DMH, DMDMH and MDMH. Farina fails to include DHA in their composition. Trinh cures this deficiency. Trinh specifically teaches that DHA has broad range antimicrobial activity thereby making a useful preservative component of compositions. One would have been motivated to include DHA in the composition of Farina with a reasonable expectation of success since Trinh teaches mixtures of preservative may be utilized to control a broad range of microorganisms. With respect to the weight ratio of the aldehyde donor and DHA being from about 0.05:30 (or 1:600) to 30:0.05 (or 600:1), it is obvious. Trinh teaches using DHA at about 0.2% by weight of the compositions. The weight percentage of the aldehyde donor taught by Table 5 is about 60%. The combination of the references results in a weight ratio of donor to DHA of 300:1, a value well within the instantly claimed range. It's noted that Trinh fails to teach DHA as being present in an amount greater than about 0.5% by weight of the composition. However, as Trinh teaches using DHA at about 0.2%, the values are sufficiently similar to obviate the instantly claimed value. *A prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have similar, if not identical, properties. See MPEP 2144.05. With respect to the limitation that the composition be free of isothiazolone, the combination of applied

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references meets such a limitation as both do not require inclusion of isothiozolones. Therefore, the invention as a whole is *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in absence of evidence to the contrary.

### ***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

13. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle A. Purdy whose telephone number is 571-270-3504. The examiner can normally be reached from 9AM to 5PM.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau, can be reached on 571-272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*/Kyle Purdy/  
Examiner, Art Unit 1611  
April 24, 2009*

*/David J Blanchard/  
Primary Examiner, Art Unit 1643*